

**ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
ENGLISH LANGUAGE**

PRESCRIBED TEXTBOOK: ABSOLUTE ENGLISH (IX-X)

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1	Writing an Essay	22	Expository Essays
2	Organising and Planning Your Composition	23	Critical Essays
3	Paragraph Writing	24	The Short Story
4	Characterisation Introduction (Beginning) and Conclusion (Ending) of Essays	25	Picture Composition
5		26	Uses of Tense
6	Punctuation and Capitals	27	Sequence of Tenses
7	Article	28	Adjective
8	Agreement of Verb with the Subject	29	Adverb
9	Active and Passive Voice	30	Letter to the Editor
10	Direct and Indirect Speech	31	Letter of Complaint
11	Types of Essays	32	A Letter of Apology
12	Narrative Essays	33	Letter of Persuasion
13	Descriptive Essays	34	Letter of Invitation
14	Argumentative Essays	35	Letter of Condolence
15	Types of Sentences	36	Conditional Sentences
16	Transformation of Sentences-1	37	Prepositions
17	Transformation of Sentences-2	38	Conjunctions
18	Letter Writing- Personal	39	Summary Writing
19	Letters-- Formal or Official	40	Words Likely to be Confused
20	Comprehension Skills	41	Idioms
21	Notice and E-mail	42	Proverbs

Essay Test; Oral and Aural Assessment;ELSA

Essay Test; Oral and Aural Assessment; ELSA

FLN: We often get warnings that come over SMSes and in newsprint about not sharing information regarding details of our account. Narrate an experience that a relative of yours has gone through whereby he / she had shared the account details and suffered as a result.

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

**ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024- 25
ENGLISH LITERATURE**

PRESCRIBED TEXTBOOKS: JULIUS CAESAR AND TREASURE CHEST

HALF YEARLY		ANNUAL	
CHAPTER	TOPICS	CHAPTER	TOPICS
Treasure Chest	1. Bonku Babu's Friend 2. The Night Mail 3. Skimbleshunks: The Railway Cat 4. Oliver Asks for More 5. I Remember, I Remember 6. The Model Millionaire	Treasure Chest	1. A Doctor's Journal Entry for August 6, 1945 2. Homecoming 3. A Work of Artifice 4. The Boy who Broke the Bank
Julius Caesar	Act I Scenes I, II and III Project : An alien from a different planet helped Bonku Babu gain confidence regarding dealing with people. Explain this statement with close reference to the story 'Bonku Babu's Friend'. Submission date: on or before 16.08.2024	Julius Caesar	Act II Scenes I, II, III and IV Project: With close reference to the play 'Julius Caesar' discuss how the opinion of the common people regarding Caesar was in complete contrast with that of the conspirators. Submission date : on or before 30.01.2025

SYLLABUS FOR UNIT TEST

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ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS - IX
ACADEMIC SESSION 2024 - 25
SUBJECT NAME - HINDI

PRESCRIBED TEXT BOOK - साहित्य सागर , आदर्श हिंदी व्याकरण

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1	बात अठन्नी की - सुदर्शन	4	नेताजी का चश्मा - स्वयं प्रकाश
2	काकी - सियारामशरण गुप्त	5	अपना अपना भाग्य - जैनेन्द्र कुमार
3	महायज्ञ का पुरस्कार - यशपाल	6	बड़े घर की बेटी - प्रेमचंद
1	साखी- कबीरदास	2	गिरधर की कुंडलियां - गिरिधर कविराय
3	स्वर्ग बना सकते हैं - रामधारी सिंह दिनकर	5	मेघ आए- सर्वेश्वर दयाल सक्सेना
4	यह जन्मभूमि मेरी - सोहनलाल द्विवेदी	6	सूरदास के पद - सूरदास
व्याकरण	पर्यायवाची शब्द विलोम शब्द मुहावरे संज्ञा से विशेषण भाववाचक संज्ञा पत्र लेखन अपठित गद्यांश निबंध लेखन	व्याकरण	पर्यायवाची शब्द विलोम शब्द मुहावरे संज्ञा से विशेषण भाववाचक संज्ञा पत्र लेखन अपठित गद्यांश निबंध लेखन

PROJECT TOPICS: पत्रों के माध्यम से, भारत में कृषि योजना और चित्र अध्ययन

PROJECT TOPICS :बात अठन्नी की पाठ के आधार पर रसीला का चरित्र चित्रण करते हुए लेखक का परिचय दीजिए ।

FLN:

वस्तु विनिमय किसे कहते हैं ? प्राचीन समय में
वस्तु विनिमय के माध्यम से लोग किस तरह
वस्तुओं का क्रय विक्रय करते थे ? मुद्रण के बिना
भी होने वाले इस व्यापार का वर्णन करते हुए
अपने मित्र को पत्र लिखें ।

Project submission date 1st project :on or before 31.08.24

Final :on or before 30.11.24

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS - IX
ACADEMIC SESSION 2024- 25
SUBJECT NAME - BENGALI
PRESCRIBED TEXT BOOK - SONKOLITA

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1/Prose	গিন্মি	4/Prose	ক্যানভাসার
2/Prose	লালু	5/Prose	নাম
3/Prose	বামা	6/Prose	অসহযোগী
1/Poem	বঙ্গভূমির প্রতি	4/Poem	আবার আসিব ফিরে
2/Poem	সভ্যতার প্রতি	5/Poem	সিঁড়ি
3/Poem	কুলি মজুর	6/Poem	রবীন্দ্রনাথের প্রতি
Grammar/Composition	রচনা লিখন পত্র লিখন বোধপরীক্ষণ বাগধারা এক কথায় প্রকাশ সমার্থক শব্দ শুদ্ধ অশুদ্ধ বাচ্য পরিবর্তন উক্তি পরিবর্তন বাক্য পরিবর্তন বিরাম চিহ্নের প্রয়োগ ধ্বন্যাঙ্ক শব্দ	Grammar/Composition	রচনা লিখন পত্র লিখন বোধপরীক্ষণ বাগধারা এক কথায় প্রকাশ সমার্থক শব্দ শুদ্ধ অশুদ্ধ বাচ্য পরিবর্তন উক্তি পরিবর্তন বাক্য পরিবর্তন বিরাম চিহ্নের প্রয়োগ ধ্বন্যাঙ্ক শব্দ
PROJECT TOPICS: শৈশবের স্মৃতি		PROJECT TOPICS :	লালু /সভ্যতার প্রতি
Project submission date 1st project :on or before		25.08.2024	
Final :on or before		30.11.2024	

SYLLABUS FOR UNIT TEST

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ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024-25
History and Civics-H.C.G.-1
PRESCRIBED TEXT BOOK- I.C.S.E. History and Civics by Goyal Brothers Prakashan

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
		Civics	
1. Our Constitution	Meaning,Formation of Constitution	6.Rural Local government	Rural,-Panchayati Raj,Gram Panchayat,Panchayat Samiti,Zila parishad,Meaning ,Functions.
.2. Basic features	Date of Adoption,Enforcement,Single Citizenship,Universal Adult franchise,	Urban Local Government	Urban-Municipal Committees,Municipal Corporations-Meaning And functions. Self Help goup (FLN)
3. Fundamental rights and Duties	Meaning,Classification,Fundamental	History	
	Meaningand Features,Economic Policy,Gandhian principles,Principles for the protectionof Environment and monument,principles related to peace and Security.Idea of WelfareState.	9. The Mughal Empire	Sources,Political History And Administration, Babur,Akbar,Aurangzeb.Architectural andliterary Developments.
4.Directive Principles of State Policy.		10..Composite Culture.	Sources,Bijak,Guru Granth Sahib,Ajmer Sharif
5. Elections	Meaning,Need,Types ofElection,Formation Functions of Election Commission.		Significance of Sufi ,Bhakti Movement, Mirabai,Jnaneswar,Hazrat Nizamuddin. Nanak,Kabir TeachingsandEffects.
History	Sources,The Great		
1.THE Harappan Civilization.	Bath,Seals,Dancing girl, Bearded Man,Dockyard,Script,Extent, Urban plan,Trade, Art,Craft,decline.	11. Modern Age in Europe.	Definition,Causes,Impacton art,Literature, Science.Leonardo Da Vinci,Copernicus, William Shakespeare.
2. The Vedic Period	Sources,Vedas,Epics,Earlyand Later	12.The Reformation	causes ,contribution of Martin Luther,

3..Jainism and Buddhism	Vedic Society,Economy. Sources,Angas,Tripitakas,Jatakas, Causes for the rise of both religion Doctrines and Impact.	13.The Industrial Revolution	Counter Reformation.Meaning. Definition,Causes,Results,Comparative study of Socialism and Capitalism.
4. The Mauryan Empire	Sources,Arthashastra,Indica,Ashokan Edicts,SanchiStupa,Political History, Administration.		
5.The Sangam Age.	Sources,Tirukkural,Megaliths. Society,Economy.		
6.The Age Of the Guptas FLN: Guild System	Sources,Political History,administration, Education,Science,Literature, Culture.		
7. The Cholas	Sources,Inscriptions,Brihadeswara temple, Political History ,Administration. Sources,Inscription,Qutub		
8.The Delhi Sultanate	Minar,political history Qutubuddin History,administration of Qutubuddin Aibak,Alauddin Khilji,Muhammad Bin Tughlaq.		
PROJECT TOPICS : The Vedic Age Subtopics mentioned in the chapter.		PROJECT TOPICS :The Industrial Revolution Subtopics mentioned in the chapter..	
Date ofSubmission 16.8.24		15.01.25	

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

**ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 -25
SUBJECT - GEOGRAPHY**

PRESCRIBED TEXT BOOK : A TEXTBOOK OF ICSE GEOGRAPHY PART I BY VEENABHARGAVA

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1. Earth As A Planet	Shape of The Earth Earth As The Home Of Mankind and The Conditions That Exist.	10. Hydrosphere	Meaning of Hydrosphere , Tides and Ocean Currents . Their circulation pattern and effects.
2. Latitudes and Longitudes	Concept of Latitudes and Longitudes. To find location and Calculation of Time	11. Atmosphere	Composition and Structure
3. Rotation and Revolution	Rotation- Direction, Speed and its Effects Revolution - Effects	12. Insolation	Meaning and Factors Affecting Temperature
4. Structure Of The Earth	Core ,Mantle , Crust- Meaning, Extent and Composition	13. Atmospheric Pressure and Winds	Meaning and Factors Affecting Atmospheric Pressure, Major Pressure Belts of The World. Permanent Winds, Periodic Winds, Local Winds, Variable Winds, Jet Stream.
5. Landforms Of The Earth	Mountains, Plateaus, Plains. Definitions, Types and Formation.	14. Humidity	Meaning and Difference Between Absolute And Relative Humidity. Condensation and Precipitation- forms Types of Rainfall
6. Rocks	Difference between Minerals and Rocks - Igneous, Sedimentary , Metamorphic Rocks	15. Pollution	Types- Air, Water, Soil, Radiation and Noise Sources, Effects and Preventive Measures.

7.Volcanoes	Meaning ,Types, Effects and Distribution	16. Natural Regions Of The World	Equatorial Region, Tropical Grasslands, Tropical Deserts,Tropical Monsoon, Temperate Grassland Mediterranean, Taiga and Tundra.
8.Earthquakes	Meaning , Causes, Measurement Effects and Distribution.	World Map	Oceans, Seas, Gulfs , Straits and Rivers. Mountains and Plateaus. Major Natural Regions.
9.Weathering and Denudation	Meaning ,Types and Effects. Meaning and agents of Denudation: Work of River and Wind		
World Map	Oceans, Seas, Gulfs , Straits and Rivers Mountains and Plateaus.		
PROJECT TOPIC :	Air Pollution OR Water Pollution OR Meteorological Instruments and their uses	PROJECT TOPIC :	Air Pollution OR Water Pollution OR Meteorological Instruments and their uses
Assignment 1	Conventional Symbols	Assignment 1	Conventional Symbols
Assignment 2	Scale	Assignment 2	Scale
		Assignment 3	Direction
Project submission date : (on or before)	16. 08.24	Project submission date : (on or before)	25.01.25

SYLLABUS FOR UNIT TEST

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ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS VII
ACADEMIC SESSION 2024 - 25
SUBJECT : PHYSICS
PRESCRIBED TEXT BOOK : CONCISE PHYSICS

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1. Measurement and Experimentation	Need of unit for measurement and its kind, derived units, Least count of instruments screw gauge and vernier calipers, Numericals, Pendulum experiments, Beam balance	7. Reflection of Light	Reflection of light, Images formed in pair of mirror, Uses of plane mirror, Spherical Mirror, Ray diagram of convex and concave mirror, Uses of Mirrors
2. Motion in one Dimension	Rest, motion, speed, velocity, acceleration, Graphical representation of linear Motion, numericals	8. Propagation of Sound wave	Nature of sound waves, Requirement of a medium for sound wave to travel, Propagation and speed in different media, Comparison with speed of light
3. Laws of Motion	Newton's Laws of Motion and its application, Gravity and Free fall	9. Current Electricity	Types of Cell, Symbols for circuit diagram, Insulators and Conductors, Flow of electrons between conductors, Resistance, Efficient use of energy
4. Pressure in Fluids and Atmospheric Pressure	Thrust and Pressure and their units, Pascal's Law and transmission of pressure in liquids, Principle of Floatation, Application, Relative density and measurement, numericals	10. Magnetism	Induced magnetism, Magnetic field of earth, Neutral points, Introduction for electromagnet and uses

5. Upthrust in Fluids, Archimedes' Principle and Floatation Upthrust and Archimedes' Principle, Properties of upthrust, Verification of Archimedes Principle
6. Heat and Energy Concept of heat and temperature, Anomalous Expansion of Water, Thermal expansion, Energy flow and its importance, Energy Resources. Renewable and non renewable, Green House Effect and Global warmingsources, energy degradation

PROJECT TOPIC : As per ICSE Syllabus

Project submission date :
(on or before) 31.07.2024

PROJECT TOPIC : As per ICSE Syllabus

Project submission date : (on or
before) 11.03.2024

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
SUBJECT: CHEMISTRY
PRESCRIBED TEXT BOOK : A New Approach To ICSE Chemistry

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1. Language of Chemistry	Symbols, valencies, Chemical formul, chemical equation, atomic weight, molecular weight, percentage composition of compounds.	5. The Periodic table	Dobereiner's Law of Triads, Newland's Law of Octaves, Mendeleev's periodic table, Modern Periodic table, Groups and periods, Study of alkali metals, alkaline earth metals, halogens, noble gases.
2. Chemical reactions and Chemical changes.	Types of Chemical reactions, Energy changes in Chemical reactions.	6. Study of first element- Hydrogen	Position of Hydrogen in Periodic table, Preparation, Chemical properties of hydrogen, Redox.
3. Water	Solutions, Solubility, Water of crystallisation, Efflorescence, Deliquescence, Hygroscopy, Drying and Dehydrating agents.	7. Study of gas laws.	Gaseous state of matter, Boyle's Law, Charles' Law, The Gas equation.
4. Atomic Structure and Chemical Bonding	Structure of Atom, Isotopes, chemical bond, Types of Chemical Bond.	8. Atmospheric Pollution	Acid rain, Global warming, Oxone depletion, Oxygen Cycle, Carbon dioxide cycle
		9. Practical Chemistry	Detection of gases, action of heat on Compounds, Reaction of dilute sulphuric acid, flame test.
PROJECT TOPIC : Project submission date : (on or before)	As per ICSE syllabus As per schedule	PROJECT TOPIC : Project submission date : (on or before)	As per ICSE syllabus As per schedule

SYLLABUS FOR UNIT TEST

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ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
SUBJECT-BIOLOGY
PRESCRIBED TEXT BOOK : ICSE-CONCISE BIOLOGY-9

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1. Intrducing Biology	Growth of Biology, Branches of Biology	10.Nutrition	Classes of different nutrients,balanced diet.
		11.Digestive system	Teeth,salivary gland,different parts of the alimentary system and process of digestion.
2.The Cell -A unit of life	Cell Structure, Cell theory, Cell organelle, Prokaryotic and Eukaryotic cell	12.Skeleton system	The different human skeleton,structure of vertebrae,axial and appendicular skeletal system,joints.
3.Tissues	Animal tissues-different typesPlant Tissue – Simple and Complex Tissue, Structure of bisexual parts,description of floral parts.	13.Skin	structure and function of skin,skin derivatives,temperature regulation.
4.The Flower		14.The respiratory system	Structure of respiratory system,gaseous exchange and tissue respiration,respiratory volumes.
5.Pollination and fertilization.	Different types of pollination,advantages and disadvantages.fertilization.	15. Hygiene	General idea of personal hygiene,mode of transmission
6.Seeds -structure and germination	Structure of bean seed,maize seeds,germination,types of germination,viviparous germination.	16.Diseases-causes and control.	Different types of diseases and their causes and control
7.Respiration in plants	Respiration,different types,experiments.	17.18Aids to health and health organization	Active and passive immunity,defence system of the body,terminology,vaccines,activities of Red cross and WHO.
8.Five kingdom classification.	Different characteristic features of different phylla of plant and animals.		

9.Economic importance of bacteria and fungi.	Bacteria, fungi, usefulness, food spoilage, diseases	19.Waste generation and management	Categories of wastes, methods of disposal of waste.
PRACTICAL TOPIC :	As per the ICSE syllabus chapters.	PRACTICAL TOPIC :	As per the ICSE syllabus chapters.
Practical lab manual submission date :	As per class schedule	Practical lab manual submission date	As per class schedule

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
SUBJECT: ECONOMIC APPLICATIONS
PRESCRIBED TEXT BOOK : Elementary of Economic Applications

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1 .Meaning nd Definition of Economics	Definition, Micro and Macro Economics, Types of Activities	8. Main Sectors Of Indian Economy :Services	Classification of Service Sector, Importance of Services, Factors Enabling High Growth of Service Sectors in India, Interdependence among various sectors.
2. Basic Economic Entities in an Economy	Economies and its main Sectors, Basic Units of Economic Analysis, Consumers, Producers, Government	9. Other Sectors of Indian Economy	Introduction, Classification on the Basis of Ownership, Private Sector, Public Sector, Classification on the basis of habitation
3. Basic Problems of an Economy	Economic Problems, Central Problems of an Economy, Efficient use of resources, Economic Growth and Economic development	10. Economic Infrastructure	Introduction , Meaning and Components of Infrastructure, Economic infrastructure, Transport System, Communication, Insurance, Energy, Irrigation, Effects of weak infrastructure
		Financial Literacy: Financial Inclusion Schemes	Pradhan Mantri dhan Jan Yojna, Sukanya Samridhi Yojna, National pension Scheme, Employees Provident Fund Organisation, Atal Pension Yojna

4 .Types of Economies	Classification on The Basis of Ownership ,The Means of Production,Classification on the basis of Level of Development	11. Social Infrastructure Financial literacy: PAN card and Aadhar Card	Importance of Social Infrasructure,Education,Health,Family Planning,housing,Impacts of weak Social Infrastructure Purpose,requirement and issuing body of PAN card,Income tax,Aadhar card and its benefits
5.Characteristics of Indian Economy	What is Indian Economy?Characteristics of Indian Economy.	12 .Consumer Awareness	Consumers place in market,Forms of Consumer exploitation, Reasons for Consumer Exploitation,Growth of consumer awareness,Consumer Education,Consumer Rights,Food Adulteration,Standardisation of
6.Main Sectors of Indian Economy: Agriculture	Main Sectors of Indian Economy,Meaning of Agriculture,Role,Trends in Agricultural Production,Cause of low productivity,Impact		
7.Main Sectors of Indian Economy: Industry	Meaning of Industrialisation,Importance, Significance of industries, Interdependence of agriculture and industry, Problems and impact of industrial practices on ecosystem,		
13. Globalisation	Globalisation, Factors and Impacts of globalisation, World Trade Organisation, Multinational Corporations.		

PROJECT TOPIC : Central Problems Faced By
Economy, Problems In Public
Transport,

Project submission date : (on or
before)

20.08.2024

PROJECT TOPIC :

Consumer Rights and Consumer
Protection.

Project submission date : (on or
before)

15.12.2024

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
SUBJECT: Mathematics

PRESCRIBED TEXT BOOK : Understanding ICSE Mathematics

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
2. Compound Interest	Application of Formula, Growth & Depreciation (FLN)	14. Theorem on Area	Fundamental Concepts, Area Axioms
3. Expansions	Special products & Applications	19. Co-ordinate Geometry	Co-ordinate Axes, Graph of Linear Equations, Graphical Solution of pair of Linear Equations, Distance Formula
1. Rational and Irrational Numbers	Rational & Irrational Numbers, repeating numbers, Non repeating, non terminating decimals, surds and rationalization of surds	13. Rectilinear Figures	Types of Quadrilateral and their Properties, Construction of Quadrilateral
4. Factorization	Factorization by taking common factor, grouping, trinomials, cubic factorisation	16. Mensuration	Perimeter and Area of triangle, Quadrilateral, Circumference and area, Surface area and Volume of Cuboid and Cubes
10. Triangles	Congruency of triangle, Isosceles triangles, Inequalities	20. Statistics	Mean and Median of Ungrouped Data, Frequency Distribution, Cumulative Frequency, Graphical Representation of Statistical Data
11. Mid- point Theorem	Mid- point Theorem, Intercept Theorem		
5. Simultaneous Linear Equation	Substitution Method, Elimination Method, Cross multiplication Method		
6. Problems on Simultaneous Linear	Word Problems		
7. Quadratic Equations	Solving Quadratic Equations		
8. Laws of Indices	Laws of Indices		
9. Logarithms	Logarithm, Laws of Logarithms		
12. Pythagoras Theorem	Pythagoras Theorem & its Converse, Application in word problem		
15. Circle	Chord & Arc Property		
17. Trigonometrical Ratios	Trigonometrical ratios of the triangles		
18. Trigonometrical Ratios of Standard Angles	Trigonometrical Tables of Standard Angles Complementary angle		
PROJECT TOPIC :	Study ways of raising loan to buy a Car or House	PROJECT TOPIC :	Statistical Analysis of Height, Weight, Number of Family Members and Pocket Money of Class – IX students
Project submission date : (on or before)	15.07.24	Project submission date : (on or before)	15.11.24

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
ROBOTICS AND ARTIFICIAL INTELLIGENCE
PRESCRIBED TEXT BOOK : Robotics & Artificial Intelligence. - published by Orange Education Pvt. Ltd.

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
Part-1.Chap-1. Introduction to Robotics	Understanding Robots, Generations of Robots, Ethics in Robots, Laws of Robotics, Classification of Robots, The future of Robotics and Robots.	Part-1.Chap-2. Robot as a System	Insectbots, Industrial Robots, Humanoid Robot, Aerial Robots, Underwater Robots, Mobile Robot.
Part-1.Chap-2. Robot as a System	Building Blocks of Robots, Identification of Robots, Example of Robots based on size - Microbot, Snakebots. (Till Page no. 55)	Part-1.Chap-3. Concepts in Robotics.	The concept of Robotics, Concept of joints in Robotics, Degree of Freedom in Robots, Concepts of Motions in Robotics, Concept of links in Robotics.
Part-2.Chap-1. Introduction to Artificial Intelligence.	Definition of Intelligence, Meaning and Brief History, Applications and benefits of AI, Turing Test, AI applications in daily life, Disadvantages of AI, Ethical issues with AI, AI Ethics progress, AI Bias, Ethical Considerations in AI.	Part-2.Chap-2. Roll of Data and Information, Evolution of Computing	Data, Data to Information, Deterministic computing for Deterministic Problems.

Part-2.Chap-3. Introduction to Data and Programming with Python.

Introduction to Python, Working in Python, Character set, Tokens, Operators, input() function, Statements in Python, Data Types and Variables, Operator Precedence, Print() function, Errors in Python, Sequential Statements, Jump Statement, Function, Arguments, Iterative statements.

Part-2.Chap-4. AI Concepts and AI Project Framework

AI concepts, 4Ws Problem canvas, Data Acquisition, Problem Statement Template, Data Visualisation, Data Exploration, Components and Stages, Decision Tree - Rule-based Approach, AI project Evaluation. Data Modelling Techniques, Pixel It - Learning based approach, AI Project deployment.

Entire Syllabus is included along with project (Part - I : ch - 1,2 and 3 and Part - II : ch

PROJECT TOPICS : Robot as a system.

Project submission date : on or before : 14.08.2024

PROJECT TOPICS : 10 Programs of Python

Project submission date : on or before : 29.11.2024

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

**ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
COMPUTER APPLICATIONS**

PRESCRIBED TEXT BOOK : ICSE UNDERSTANDING COMPUTER APPLICATIONS with BlueJ

HALF YEARLY		ANNUAL	
CHAPTER NO./TITLE	TOPICS	CHAPTER NO./TITLE	TOPICS
1. Introduction to Object Oriented Programming Concepts	Types of computer languages, Compiler and Interpreter, Types of High Level Languages, Principles of OOP. Features of Java, Types of Java programming, BlueJ, Execution of Java Program.	9. Nested for loops	Syntax of Nested loop, use of break and continue in nested loop.
2. Elementary Concept of Objects and Classes	Object and Class, Software object and class, Instance of class, Object Factory.	10. Computing and Ethics	Ethical issues in computing, Intellectual Property Right, Spam, Cyber Crime, Cyber laws, Hacking, Protection against Malicious Intent.
3. Values and Data Types	Unicode character set, ASCII code, Token, Identifier, Literal, Type conversion-Implicit and Explicit.	11. More on Basic Input/Output (Scanner and Printer Classes)	Scanner class, Methods to read tokens,
4. Operators in Java	Concept of Operator, Expression and Statement, Java Expression, Shorthand operator, Ternary operator, Hierarchy of Operators	Entire Syllabus is included along with project of total 20 programs. (ch - 1,2,3,4,5,6,7,8,9,10,11)	
5. Input in Java	Java comments, Input by Function Argument, InputStreamReader Class, Scanner Class, Testing and Debugging, Types of Errors.		

6. Mathematical Library Methods
Mathematical Library Methods,
Trigonometrical Functions,
Conversion from degree to radian
and vice versa.
7. Conditional Statements in Java
Flow of control, Conditional flow, if
statement, if-else statement, if-elseif-
else statement, Nested if statement.
8. Iterative Constructs in Java
Entry control loop, Exit control loop,
for loop, while loop, do-while loop,
jump statement- break, continue,
finite loop, infinite loop, delay loop,
Interconversion of Loops.

PROJECT TOPICS : 10 Programs from if-else, switch-case,
Loop. [Each program should contain VDT and Sample input and
output.]

Project submission date : on or before : 14.08.2024

PROJECT TOPICS : 10 Programs from if-else, switch-case, loop, nested loop.
[Each program should contain VDT and Sample input and output.]

Project submission date : on or before : 29.11.2024

SYLLABUS FOR UNIT TEST

Will be notified by the subject teacher at the appropriate time

**ST. FRANCIS XAVIER SCHOOL
PHYSICAL EDUCATION
SYLLABUS FOR CLASS -IX
ACADEMIC SESSION 2024-25**

HALF YEARLY		ANNUAL	
TOPICS & COMMANDS	BENEFITS & VALUES	TOPICS & COMMANDS	BENEFITS & VALUES
*General Warm-ups	Improving body flexibility	*Dynamic Stretching exercises	Body Flexibility
*Yoga Exercises	Stress relief, helps digestion	Upper and lower body exercises	Improvement of stamina
*Recreational Games	Developing mental ability & physical fitness.	Fitness Training-jogging,	Developing body fitness
*March past commands	Discipline during assembly	March Past Practice	Practice for Sports Events

**ST. FRANCIS XAVIER SCHOOL
SYLLABUS FOR CLASS IX
ACADEMIC SESSION 2024 - 25
SUPW**

HALF YEARLY		ANNUAL	
	TOPIC		TOPIC
MAIN CRAFT-	Crop and Seed production / Bakery.	MAIN CRAFT-	Making Toys and Puppets/ Book Binding/ Photography
SUBSIDIARY CRAFT / SERVICES -	Surface Decoration / Interior Decoration.	SUBSIDIARY CRAFT / SERVICES -	Dyeing and Painting / Plaster of Paris work.

Project submission date : on or before : 14.08.2024

Project submission date : on or before : 29.11.2024